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AUSTRALIAN BUREAU OF STATISTICS

# ANNUAL REPORT 1985-86



## STATISTICIAN'S JOB NOT HAPPY ONE

### **Complexity is increasing**

#### Economists' "Way to Heaven"

CANBERRA. Tuesday. — Dr Roland Wilson, economist in the Commonwealth Statistician's Department, who will succeed the Commonwealth statistician (Mr. E.T. McPhee) on March 6, will be succeeded as economist by Dr. A. Smithies, who is assistant economist to the department. Like Dr. Wilson, Dr. Smithies is a Tasmanian and a Rhodes scholar.

"I have had enough of it," Mr. McPhee said, when asked to-day what were his feelings on the eve of his retirement. "I think I can claim that for a good many years I was some small 'power behind the throne'. I am sure that I was much happier there. The last three years have been very strenuous. The Commonwealth statistician's job has never been a sinecure, and there are no signs that it will become any lighter in the near future. The extensions of the functions of government and the continually increasing complexity of the social structure demand a continual expansion of the field of statistical inquiry.

There is now an army of economists confident that, given sufficient bricks of the right type and quality, a way can be cleared to heaven. It is the statistician's job to provide the bricks."



# Australian Bureau of Statistics

Annual Report 1985-86



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The Honourable P. J. Keating M.P.  
Treasurer of the Commonwealth of Australia

In accordance with the provisions of section 24(1) of the *Australian Bureau of Statistics Act 1975*, I hereby submit to you, for presentation to Parliament, this Report for the year ended 30 June 1986.

*I. Castles*

I. Castles  
Australian Statistician

8 October 1986



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*Notes.* In this Report after the first reference the Australian Bureau of Statistics is referred to as the Bureau or the ABS, and the Australian Statistics Advisory Council as the Advisory Council or ASAC.

The contact for any inquiries or further information on the contents of this Report is the Assistant Statistician, Co-ordination Branch at the Cameron Offices, Canberra — telephone (062) 52 5256.



# The ABS in 1985-86 : An Overview

As in earlier years, the Australian Bureau of Statistics devoted the greater part of its energies in 1985-86 to maintaining, in volume and quality, its regular and ongoing statistical service to Australian governments and to the wider community. A total of 1 650 publications, which are the traditional medium for release of official statistics, was produced and distributed to approximately 40 000 clients. In addition, a number of new and/or significant activities are worthy of mention.

The most significant project undertaken during the year was the successful conduct on Monday 30 June 1986 of the eleventh national census of population and housing. For the first time the external territories of Christmas Island and the Cocos (Keeling) Islands were included in the census. Approximately 38 000 field staff were recruited and trained to deliver and collect the census forms. Initial processing of the completed census forms will be undertaken during 1986-87 at a data transcription centre established in Sydney; further processing will be undertaken in Canberra. First results from the census are expected to be released in February 1987.

During 1985-86 the newly developed Australian Standard Classification of Occupations was used for the first time. It was introduced in the labour force survey and the survey of employee earnings and hours, and will also be used in the population census. As a result, significant improvements are expected in the statistics relating to the occupation of the workforce.

Work continued on the development of a full survey of labour costs through pilot testing aimed at determining the feasibility of collecting a wide range of data using alternative collection methodologies. Of particular interest was the preparation for the conduct during 1986-87 of a survey covering the major labour cost items—wages, salaries, superannuation, workers' compensation and payroll tax.

A household energy survey was conducted during the year. It will provide information on ownership of domestic appliances, levels of household consumption of reticulated gas and electricity, and usage patterns for major domestic appliances.

Extensive development was undertaken of a survey of income, alternative working arrangements and accommodation costs, to be conducted in 1986-87. In addition, first results from the 1984 Household Expenditure Survey were released.

A construction industry survey, collecting data in respect of 1984-85, was conducted. Data were obtained from a sample of private sector businesses and all public sector organisations engaged in construction activity. For the first time, name and address information supplied by the Australian Taxation Office was used to improve the coverage of businesses included in the collection.

Publications of statistics about the structure and operation of Australian transport businesses from the first transport industry survey, which collected data in respect of 1983-84, were also released. Extensive development took place of the questionnaires and operating procedures for a retail census to be conducted in 1986-87 in respect of the 1985-86 financial year. The approach adopted has been to reduce substantially the cost and respondent burden by requiring only a sample of retailers to provide more detailed information, with the remaining retailers being asked to provide basic information only.

Some major development work on the ABS's price indexes was undertaken in 1985-86, the most significant being expansion and reweighting of the price index of materials used in manufacturing industry, commencement of a review and reweighting of the price index of materials used in house building, and continuation of a review and reweighting of the Consumer Price Index (including development of proposals for changing the treatment of home ownership costs).

A revised presentation of balance of payments statistics was introduced in February 1986 to bring Australian practice into line with the latest statistical standards and user requirements.

During the year some important developments occurred in disseminating statistics using electronic media. In April 1986 the Bureau began to provide, on a trial basis, main economic indicator statistics through VIATEL, the national videotext service. This was followed in June by the introduction of AUSSSTATS, an on-line service using CSIRONET, CSIRO's public access computer network. Both of these innovations have proved highly successful.

On 23 August 1985 Mr R.J. Cameron, CB, who had been Australian Statistician since 7 March 1977, retired from the position and from the Australian Public Service. Mr A.R. Bagnall, AM, acted as Australian Statistician until 21 February 1986, when he proceeded on leave pending his own retirement from the Service. Mr W. McLennan then acted as Australian Statistician until 10 April 1986 when Mr I. Castles, OBE, was appointed to the position for a period of seven years. Mr Castles had previously been Secretary of the Department of Finance.

In announcing Mr Castles' appointment, the Prime Minister said that the Government was committed to the continuing development of the ABS as an objective statistical organisation maintaining the highest professional standards, thereby ensuring the availability of adequate information to support decision-making in the public and private sectors and to promote a generally well informed society. The Prime Minister also stated that it was the Government's intention that the ABS should establish closer links with the main centres of economic and social research within Government and in the universities which make extensive use of the Bureau's product in carrying out their functions.

# Functions and Management

## Functions

The principal legislation determining the functions and responsibilities of the Australian Bureau of Statistics is:

- *Australian Bureau of Statistics Act 1975*
- *Statistics (Arrangements with States) Act 1956*
- *Census and Statistics Act 1905*

Under the *Australian Bureau of Statistics Act 1975* the Australian Statistician is required to submit to the Treasurer, for presentation to Parliament, an annual report on the operations of the Bureau. This is the eleventh annual report by the Australian Statistician.

The ABS is the central statistical authority for the Commonwealth Government and, under arrangements between the Commonwealth and the States, provides statistical services for the State governments. The functions of the ABS are defined in section 6 of the *Australian Bureau of Statistics Act 1975* as follows:

- (a) to constitute the central statistical authority for the Australian Government and, by arrangements with the Governments of the States, provide statistical services for those Governments;
- (b) to collect, compile, analyse and disseminate statistics and related information;
- (c) to ensure co-ordination of the operations of official bodies in the collection, compilation and dissemination of statistics and related information, with particular regard to—
  - (i) the avoidance of duplication in the collection by official bodies of information for statistical purposes;
  - (ii) the attainment of compatibility between, and the integration of, statistics compiled by official bodies; and
  - (iii) the maximum possible utilization, for statistical purposes, of information, and means of collection of information, available to official bodies;
- (d) to formulate, and ensure compliance with, standards for the carrying out by official bodies of operations for statistical purposes;
- (e) to provide advice and assistance to official bodies in relation to statistics; and
- (f) to provide liaison between Australia, on the one hand, and other countries and international organisations, on the other hand, in relation to statistical matters.'

In addition, under the Government-to-Government Arrangements entered into with the States pursuant to the *Statistics (Arrangements with States) Act 1956*, the ABS has a responsibility to State governments to provide certain statistical services specified in the separate arrangements, together with such other statistical services 'as may reasonably be required for the purposes of the State . . .'

These arrangements offer substantial advantages. They involve fewer requests for information from people and businesses than if the Commonwealth and States both ran extensive statistical collections. They require less staff and funding than the total that would be required by separate Commonwealth and State statistical offices. They ensure the use of a single Australia-wide set of definitions in ABS collections, with consequent advantages for businesses supplying data. They keep to the forefront the desirability of interstate comparability of statistics.

A major aspect of these arrangements is that the Commonwealth agreed to meet the costs of providing a statistical service.

### Organisation

Besides the Central Office in Canberra the ABS has an office located in the capital city of each State and the Northern Territory. In Western Australia, South Australia and Tasmania the Deputy Commonwealth Statistician administering those offices is also the State Government Statistician.

The number and distribution of operative staff over the last three years is shown in the following table.

DISTRIBUTION OF OPERATIVE STAFF 1983-84 to 1985-86(a)

| Office    | Average monthly staff numbers |         |         |
|-----------|-------------------------------|---------|---------|
|           | 1983-84                       | 1984-85 | 1985-86 |
| Canberra  | 1 671                         | 1 669   | 1 668   |
| Sydney    | 486                           | 493     | 529     |
| Melbourne | 421                           | 442     | 428     |
| Brisbane  | 318                           | 321     | 319     |
| Perth     | 217                           | 216     | 229     |
| Adelaide  | 218                           | 219     | 217     |
| Hobart    | 123                           | 125     | 132     |
| Darwin    | 30                            | 30      | 36      |
| Total     | 3 484                         | 3 515   | 3 558   |

(a) Comprises full-time staff and part-time staff at full-time equivalent. Excludes staff on approved leave for periods of twelve weeks or longer.

Details for 1985-86 are given in Appendix 1. The top structure and senior staff of the ABS are shown in Appendix 2.

ABS expenditure in 1985-86 was \$124.0 million, of which by far the largest component was salaries. Other large items were expenditure on office requisites, postal and telephone services, and payments to field interviewers (agents). Receipts totalled \$1.2 million, largely from 'for sale' publications. Details of both expenditure and receipts are given in Appendix 3.

The distribution of expenditure across various statistical and services activities is shown in Appendix 4. The largest expenditure was on the labour statistics program.

In order to provide official statistics, the ABS undertakes a large number of separate collections, ranging from periodic censuses of industry to regular surveys to provide current economic indicators, from household surveys on specific social or economic issues to the population census. In addition, the ABS devotes considerable efforts, in close co-operation with Commonwealth and State administrative agencies, to producing statistical series such as import entries and motor vehicle registrations.

Each field of statistics is the responsibility of a subject matter unit. These are organised into three Divisions: Economic Accounts; Economic Censuses and Surveys; and Demography, Labour and Social. The service functions of the ABS are organised into three Divisions: Statistical and User Services; Computer Services; and Co-ordination and Management.

In order to produce relevant statistics the ABS must keep in touch with users regarding their statistical requirements and with respondents to collections regarding their ability to provide data. This is done at a number of levels, and through various channels, depending on the area of statistics concerned.

The various subject matter units maintain ongoing contact with suppliers and users of data through a variety of means including standing committees, user groups, conferences and seminars of representative organisations, and through day-to-day contact in the course of collecting and disseminating data. ABS officers outposted to government departments and authorities also play an important part in these respects.

At the highest level, the Australian Statistics Advisory Council, which was established by the *Australian Bureau of Statistics Act 1975*, plays an active role regarding the direction and priorities of the ABS work program. The activities of the Council are described in its annual report to Parliament. The annual Conference of Statisticians, at which State governments are represented by a State official as well as by the Deputy Commonwealth Statistician in charge of each State Office of the ABS, is another forum in which directions and priorities are examined, with particular reference to meeting State statistical needs. A statistical co-ordination and consultative mechanism also operates in each State and the Northern Territory.

### **Management**

The diverse activities involved in providing official statistical services require a considerable management effort to marshall resources in an optimal fashion. From the early 1970s the ABS became increasingly aware not only of the virtual impossibility of attempting to satisfy all demands, but also of the constraints of limits on public spending and the burden placed on respondents. Efforts to respond positively and responsibly to increasing demands, while staying within these constraints, led to a reshaping of management practices. What follows is an outline of the main features of the system of management of the ABS today.

A program/project framework, overlaid on the formal organisational structure, facilitates a co-ordinated approach to the planning, disposition and use of staff and financial resources. Program/project managers and leaders are identified in Central Office and in each State Office. In essence this program/project management, together with the normal hierarchical line management within each office, forms the basis of a formal matrix management system across all offices.

Within this framework a rolling three year forward work program is developed. Before provision is made for staffing levels in future years, all proposals for new or extended collections are analysed to ensure that appropriate account has been taken of resource demands on the service areas whose contribution will be essential to successful completion of the proposal. Estimates are made of staffing requirements for proposals judged to be of high priority. Staff estimates for ongoing work and for projects already approved are reviewed and extended a further year ahead.

In order that feasibility studies or developmental activities are not commenced for proposals unlikely to be implemented, regard is had to the total resources likely to be available to the Bureau within the three year period and to the total demands on service areas which the proposed forward work program would entail.

In drawing up the forward work program, judgments about relative priorities of ongoing and proposed collections are made in the light of continuing consultations with users of statistics. Broad objectives are established for each program and specific goals to be achieved over the three year period are specified for each project.

Proposals from program managers are considered by senior management in the period June to September each year. The forward work program and estimates which emerge are then examined by the Advisory Council, reconsidered in the light of its advice and then submitted to the Minister. Staff and financial estimates are forwarded to the Department of Finance.

As decisions are made by the Government on staffing and finance, resources available for the first year of the forward work program become the basis for controlling and monitoring the use of resources in all offices of the Bureau. Staff and financial resources, particularly for travel, overtime and payments to field interviewers, are allocated at project level to each office. The responsibility for the use of these resources lies with the respective project managers. The allocations are reviewed periodically during the year to take account of project experience and any changes in circumstances that have occurred or are foreseen.

An integral factor in this whole process is the series of reviews which has been proceeding since the mid-1970s. The purpose of the review program has been to improve efficiency and effectiveness, and to identify resources which may be diverted to other higher priority work. For statistical areas, the reviews include both statistical aspects (e.g. the purpose of the statistics and their justification) and managerial aspects (e.g. can the purpose be accomplished more efficiently and economically?). The two aspects are, of course, complementary. Reviews of service activities give comparable attention to purpose, justification and managerial aspects.

Regular assessments on a program/project basis are also made to ascertain if the goals set down in the work program are being achieved. In addition, heads of Central Office Branches and of the State Offices report formally to senior management, on a rotation basis, on achievement against the agreed goals. In this way overall managerial effectiveness is monitored and senior managers both in Central Office and the State Offices have an opportunity to discuss problems with senior management of the ABS.

This program/project system is further enhanced by periodic meetings of senior officers of the Bureau to consider general policy, statistical and administrative matters. One of the standing items on the agenda is the work program, which is discussed in detail before presentation to the Advisory Council.

From time to time, inter-office conferences are held of representatives of subject matter or service units, or those engaged on particular projects. The benefits in communication across a geographically dispersed organisation are significant.

Overlaid on these management practices are some special arrangements to ensure the successful redevelopment of computing systems. A standard systems development methodology has been adopted. All work is undertaken by multi-discipline project teams under the direction of line managers, aided by management and technical review committees. Periodic reports are furnished to senior management.

A Joint Management Review (JMR) of the top management role in State Offices of the ABS, and management services functions in all offices, was conducted in 1984-85 by a team comprising two external management consultants and representatives of the ABS and the Public Service Board. The team made a large number of recommendations affecting ABS management practices and procedures and organisation structures. An implementation steering committee (ISC) chaired by the Statistician was established to guide and oversee consideration of the recommendations and their implementation.

A summary of the main issues emerging from the JMR was given in the 1984-85 Annual Report at pages 6 and 7, and progress in implementing agreed JMR recommendations is outlined below.

- Corporate planning and decision making

Considerable senior management effort has been devoted to developing an ABS corporate plan. The major objectives of this plan are to provide both a high level focus for future ABS directions and a broad level context for the existing three year forward operational planning mechanisms.

- Resource management

The ABS program/project framework has been reviewed and reduced to a more practical level for budgeting, monitoring and control purposes. A review of management information systems is being undertaken to provide more timely and comprehensive data.

- Role, performance and structure of State Offices

The role and structure of ABS State Offices has been reviewed and the top structures in each State Office reorganised to provide consistent grouping of functional responsibilities. At the same time, improved management structures were introduced to handle national statistical activities and provide an enhanced role in focusing on local respondent and user contact and responding to high priority State-specific needs.

- Management services—functions and structures

The functions and structures of management services units in Central and State Offices have been reviewed and reorganised to provide an appropriate framework to address current priorities in providing adequate support services to the organisation.

- Job design, organisation review and personnel development

A number of reviews of current practices and procedures have been planned to improve job and organisation design and develop better avenues for personnel and career development.

- Small-scale technology

Responsibilities for the introduction and support of small-scale technology have been clarified and the application of the technology has been significantly extended in the past year. The use of contemporary word processing systems has been introduced on a wide scale and micro-computers are being utilised for selected applications in all offices to improve productivity and timeliness in the provision of statistics.

- General statistical recommendations

The reorganisation of State Offices has provided a basis for the better co-ordination of statistical activities between the ABS and State government agencies and enhanced user liaison services. Further, statistics are now being disseminated via electronic media (see the following section which discusses this topic in some detail). Also, more emphasis has been placed on the analytic presentation of data.

# Dissemination of Statistics by the ABS

## Broad strategy

Given the vast amount of information available, the number of users of statistics, and the diversity of their requirements, the ABS exploits all major avenues for the dissemination of statistics and releases data in many forms including publications, microfiche, computer-readable media and, more recently, on-line electronic access. In addition, the ABS's inquiry services are heavily used, and information intermediaries in various fields are also important in the overall dissemination picture.

As the national statistical organisation the ABS has a broad role, and every effort is made to meet the information requirements not only of Commonwealth, State and Territory governments but also of the community at large. In releasing statistics, the ABS follows the long established principle that data should be made available as soon as practicable and should be equally accessible to all users.

Publications are the traditional medium for release of official statistics. With two exceptions, the ABS has adopted a standard release time of 11.30 am (eastern time) each day for all publications. At that time copies are delivered through various channels to appropriate Government Ministers and departments, and also to media representatives. Copies of publications are immediately available from the Central Information Service in ABS Offices in each capital city, and information contained in the releases can be obtained by telephoning that service. Publications are posted on the day of release to subscribers on the ABS's publication mailing lists.

In most fields, more detailed statistics than those included in publications are available by approaching the ABS through its Central Information Service or other contacts as shown in the publication concerned.

Taking advantage of technological developments in the telecommunications field the ABS has begun to use electronic means of data dissemination, as described later. This has enabled statistics to be made available more widely and more quickly and has also provided data in forms which facilitate analysis by users on their own computers.

However, even with an array of measures such as these the ABS cannot in practice meet the needs of all users of statistics directly. Various information intermediaries therefore play an important role in disseminating statistics. These include all branches of the media, libraries (general and specialised), commercial information networks, and business, academic and other research services. Recognising this fact, the ABS has taken positive steps to facilitate the provision of services by such organisations.

Particular statistical dissemination activities are discussed in further detail below.

## Publications

Generally speaking, release of statistics is accomplished by the process of including the main results in a publication (often a preliminary or summary publication for maximum timeliness). Further detail may or may not be published in hard-copy form, depending on the extent of public interest in such data and alternative means of making the statistics available to specialist clients.

Once preliminary statistics have been published, more detailed data may be available to individual users on request, either immediately or when further processing of results has occurred.

In 1985-86 there were 530 titles (monthly, quarterly, annual and irregular) involving some 1 650 separate issues. About half the titles emanated from Central Office, the remainder being fairly evenly spread among State Offices. Publications range in size from a few pages containing monthly or quarterly key indicator series, to major volumes such as the Australia and State Year Books. All publications are listed and described in the annual ABS *Catalogue of Publications* (ABS Catalogue No. 1101.0).

## PUBLICATIONS ISSUED DURING 1985-86

|              | Number of Titles |           |           |           |           |           |           |           | Number of Issues |              |
|--------------|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------------|--------------|
|              | Canberra         | NSW       | Vic       | Qld       | WA        | SA        | Tas       | NT        |                  |              |
| Annual       | 102              | 30        | 29        | 42        | 33        | 24        | 34        | 6         | 300              | 328          |
| Quarterly    | 47               | 4         | 5         | 6         | 4         | 4         | 5         | 3         | 78               | 295          |
| Monthly      | 48               | 6         | 8         | 7         | 6         | 3         | 6         | 1         | 85               | 956          |
| Other        | 41               | 7         | 5         | 3         | 1         | 6         | 3         | 1         | 67               | 71           |
| <b>TOTAL</b> | <b>238</b>       | <b>47</b> | <b>47</b> | <b>58</b> | <b>44</b> | <b>37</b> | <b>48</b> | <b>11</b> | <b>530</b>       | <b>1 650</b> |

Approximately 40 000 clients are on the ABS's mailing lists to receive publications on a regular basis. Of these, 60 per cent are in the business sector, 18 per cent in Commonwealth, State and local government, and 7 per cent in educational institutions, leaving 15 per cent in other categories.

The ABS presently charges only for its larger publications—those of 25 pages and more. No charge is made for smaller publications which are issued more frequently to convey timely summary statistics and which have a relatively short life. Proceeds from sale of Bureau publications in 1985-86 were \$458 000. In addition the Australian Government Publishing Service gained revenue of \$200 000 from the sale of 14 ABS publications which it handled in that year.

Expenditure on printing of publications in 1985-86 was \$1.3 million (1.0 per cent of total ABS expenditure). Improved printing arrangements and tighter control over production and distribution have enabled expenditure to be kept relatively constant over a number of years, despite increasing costs.

While the majority of statistical publications present the results of ongoing collections and are issued regularly, there is also a steady stream of other titles reflecting changes in statistical activity. An example of the latter is the series of publications containing the results of surveys of special topics conducted as part of the ABS's regular program of household surveys.

Continuous efforts are made to improve the value of publications to users, particularly in terms of presentation of results. These include the incorporation of more informative summaries of main features and greater use of graphs and charts. Statistical series are seasonally adjusted where appropriate and a recent innovation in some publications has been the provision of smoothed seasonally adjusted series in order to convey a clearer picture of underlying trends.

### Inquiry services

Each publication dealing with a particular subject matter provides the name and telephone number of an officer, from the area responsible for the statistics, who is able to discuss the statistics and provide further information. This avenue for inquiries is used extensively and helps to maintain contact between users of the statistics and ABS staff responsible for their production.

In addition, the ABS gives wide publicity in publications and elsewhere to its Central Information Service, which operates in each of its offices. This service provides a contact point for general inquiries about the availability of statistics or dissemination services and can satisfy many requests for information without reference to specialist areas of the ABS.

During 1985-86 the service handled about 280 000 inquiries Australia-wide. Of these 70 per cent were received by telephone, 26 per cent by personal visit and the rest by mail. Of the total inquiries 70 per cent were of a simple nature, requiring for example the provision of a publication or a few readily available figures. The other 30 per cent involved a more detailed response such as arranging for a special extraction of data, co-ordinating a response crossing a range of statistical fields, or arranging a subscription to ABS publications or other customised data services.

The subject fields covered by inquiries in 1985-86 were broadly as follows:

|  | <i>per cent</i> |
|--|-----------------|
| Price indexes                          | 24              |
| Population census and other demography | 19              |
| Foreign trade                          | 9               |
| Labour market                          | 8               |
| Manufacturing and agriculture          | 5               |
| Other                                  | 35              |

Based on a recent analysis, clients of the Central Information Service fall into the following categories:

|                                     | <i>per cent</i> |
|-------------------------------------|-----------------|
| Business                            | 47              |
| Federal, State and local government | 16              |
| Tertiary education                  | 17              |
| Other education (incl. students)    | 6               |
| Other                               | 14              |

The number of inquiries received by the service has been increasing steadily each year and can be expected to increase substantially following the 1986 Census of Population and Housing.

### **Information on microfiche**

For many years extensive use has been made of microfiche to store data for reference purposes and to disseminate detailed statistics which cannot be provided economically in publication form. Microfiche is also a means of providing a hard-copy version of much of the data made available on magnetic tape. Over a 12-month period about 260 000 copies of microfiche are dispatched on a regular basis to about 2 000 clients on the Bureau's mailing lists.

Microfiche has also been used to record and store historical statistical publications from as far back as early colonial days. Copies of these microfiche are made available to libraries and researchers.

Current publications are copied onto microfiche as a matter of routine and some are offered for sale in this form.

### **'Dial-a-statistic'**

A telephone recorded message service is provided from the larger ABS Offices. In the Sydney, Melbourne, Brisbane and Adelaide Offices the message covers a small number of the most frequently sought series, including the Consumer Price Index (CPI). In Canberra the message features the CPI and also provides information about forthcoming data releases. Australia-wide, the service received 28 000 calls in 1985-86.

### **Electronic media**

With advances in telecommunications networks and increasing community access to both large and small computers, there has been increasing pressure to provide access to statistics in forms which make the data amenable to access, storage, and manipulation by computer. Growing numbers of users require immediate access to newly released statistics and the freedom to transfer and manipulate data from large databases on demand. Some present and likely future developments in the use of electronic media are reviewed briefly below.

### **Magnetic tape services**

A growing volume of data has been made available on magnetic tape in recent years. Currently the ABS has 20 standard tape releases, not including data made available on tape on an ad hoc basis. The standard releases are described in Part B of the ABS's Catalogue of Publications. About 320 clients subscribe to these services and each year receive about 1 300 copies of standard tape releases.

Recent additions to these services include unidentifiable sample unit-record data from several household surveys. Each tape is accompanied by documentation containing the technical and other information needed to enable it to be used effectively.

### **Viatele**

On 15 April 1986 the ABS began to provide information on VIATEL, the national videotext service. The ABS service has the following components:

- Current statistics.
- Indexes to enable users to locate information of interest to them.
- Service information (addresses, telephone numbers and other particulars for each of the eight ABS Offices).
- Release dates of forthcoming publications.
- A messaging service which allows subscribers to make inquiries electronically; also to provide comments and to suggest additional information for inclusion in the service.

Currently, the statistical database consists of about 80 frames of economic, social and population statistics, updated at the time the corresponding publications are released. To date, use of the service has exceeded expectations, with the number of accesses to individual frames of information, including index frames, averaging over 6 000 per week.

### **Ausstats on-line data service**

In June 1986 the ABS introduced its AUSSTATS on-line data service using CSIRONET (the CSIRO's public access computer network). The service comprises a time series database and supporting software, the latter being identical to that used in the ABS for storing, retrieving, manipulating and presenting time series data. The service has the following features:

- The database is updated daily at the time statistics are released. Series cover the full time span of available data (up to 30 years in some cases).
- Users may access the database through a permanent link to CSIRONET, by a dial-up connection using the telephone network, or via networks linked to CSIRONET (the last-mentioned may include networks operated in Australia by information intermediaries as well as international networks).
- Users may transfer data to their own computer systems.
- Charges depend on use of the facility and are intended to cover CSIRONET charges and ABS costs related directly to the maintenance of the service.

The database for the on-line service comprises essentially the 3 200 series which are included in the ABS's quarterly time series service, which for some years has been made available on magnetic tape and microfiche. At this stage most of the series are drawn from publications, although they cover a longer time span than the published data. However, AUSSTATS has the potential to provide ready

access to a far wider range of data than it is practicable to provide in hard-copy form, and consideration is being given to expanding the scope of the present database in response to demand from users.

#### **Data for use on personal computers**

The personal computer is emerging as a widely used tool for storing, analysing and manipulating data, and the demand for data in forms suitable for direct input to personal computers has been increasing. The ABS recognises the convenience and economy of providing users with a means of transferring data to their computers without the need for keyboard entry. As already indicated, the facility to transfer data to personal computers has been incorporated in the AUSSSTATS service. The ABS is also working towards providing certain data on floppy disk in formats which can be read by the majority of personal computer systems.

#### **Electronic mail services**

A further possibility for delivering data by electronic means is the use of electronic mail services. Specifically, an electronic message containing previously requested data can be delivered automatically and instantaneously to the electronic mailboxes of subscribers to such services. The ABS has decided to provide this option to clients of its existing foreign trade special returns service (through which clients may request monthly returns showing trade in a customer-specified range of commodities). Other possible applications are under consideration.

#### **Conclusion**

In summary, while traditional methods of disseminating information will remain important, increasing use will be made of electronic means of providing access to statistics. The latter has the potential to greatly expand the amount of detailed information which can be made readily available, and the ways in which it can be used. Thus the needs of the community can be better served and the intrinsic value of the national statistical service enhanced.

# Economic Statistics

Economic censuses are designed to provide detailed information on industry structure and to facilitate valid comparisons across geographical areas and between different industries. Surveys of selected businesses are designed to provide timely and regular indicators of economic activity. Economic censuses and surveys are also important sources of data for national accounts estimates and input-output tables.

The ABS Annual Report for 1984-85 (pages 8-13) provided a detailed account of the ABS program of industry collections.

## National accounts

The system of national accounts presents, in a systematic and comprehensive way, summaries of economic transactions that take place in the Australian economy and between Australia and the rest of the world. The usefulness of the accounts derives largely from the way in which data are brought together from virtually all available sources and presented as far as possible in a conceptually consistent way both for a given period and over time. The accounts are basically in accordance with the United Nations System of National Accounts.

To present a current picture of the national economy, summary national income and expenditure accounts are published as soon as possible after the end of each quarter, in terms of both current and constant prices. However, much of the more reliable information needed for the accounts does not become available until long after the publication of preliminary figures. Estimates for the most recent quarters are therefore based on limited data and successive revisions are necessary as additional information becomes available.

A more detailed and more firmly based picture of the national economy is provided by various annual publications such as the input-output tables, estimates of gross product by industry and the annual national income and expenditure publication.

Activities during the year included:

- Development of more comprehensive estimates of expenditure on alterations and additions to dwellings for inclusion in the aggregate private gross fixed capital expenditure on dwellings in the annual and quarterly national accounts. The estimates, which in 1984-85 amounted to almost \$3 000 million, now also take account of expenditure on alteration and addition activity which either does not require a building permit or is undertaken without a permit having been obtained for the full value of work carried out.
- Introduction of a number of refinements to the national accounts arising from classificatory and presentational changes to the balance of payments statistics. (For further details see page 16.)

- Publication in January 1986 of Occasional Paper 1985/3: *Estimates of Depreciation and Capital Stock, Australia*. The paper reports on developmental work undertaken since the release of an earlier ABS paper on this topic and includes a discussion of concepts and applications, a detailed description of data sources and a series of tables presenting the results.
- Incorporation of significant adjustments to the income aggregates for gross operating surplus of companies and unincorporated enterprises in order to make adequate allowance for the understatement of income as reported for income taxation purposes.
- Transfer of processing of the quarterly national accounts to a new time series system (INFOS) based on the Bureau's Facom M382 computer. The previous data processing system was originally developed in the late 1960s and operated on computer equipment which is now obsolete.
- Redevelopment of the computer system used to process input-output statistics to operate on the Facom M382 computer.

### **International accounts**

The international accounts program produces statistics on the balance of payments, foreign investment, and foreign ownership and control.

Activities during the year included:

- Introduction of major changes in the presentation of balance of payments statistics to take account of the latest statistical standards and user requirements. The changes were described in the Information Paper *Changes in the Presentation of Australian Balance of Payments Statistics* (ABS Catalogue No. 5340.0) published in December 1985.
- Publication of results from a survey of consultancy services provided overseas, in respect of 1984-85.
- Continuation of the redesign and development of computer processing systems used for balance of payments statistics. This work has resulted in the publication of more detailed quarterly and monthly statistics.
- Completion of a new computer processing system for foreign investment statistics.
- Introduction of a new quarterly survey of Australian portfolio and other investment abroad and an improved annual survey of businesses investing abroad.
- Continuation of the redesign of methodologies and output associated with the foreign investment statistical collections in order to implement progressively the recommendations contained in the document *A Framework for Foreign Investment Statistics*. Quarterly foreign investment publications were redesigned to provide more comprehensive statistics on foreign investment in Australia and Australian investment abroad. For example, data on Australia's external debt were included for the first time.

- Publication of foreign ownership and control statistics for the life insurance industry, the general insurance industry and for registered financial corporations in respect of 1983-84. Publication for the first time of foreign ownership statistics for agricultural land and foreign ownership and control statistics for agricultural activity for 1983-84.
- Commencement of studies of foreign control of enterprises engaged in mineral exploration activity and in importing activity, and a study of foreign ownership and control of the transport industry.
- Implementation of a computer processing system for the conduct of a biennial survey of shareholdings (to identify foreign ownership of shares in Australian companies) and the determination of foreign ownership and control characteristics of enterprises in the survey.

#### Trade

The trade and shipping program covers statistics of exports, imports, imports cleared for home consumption, shipping, excise and interstate trade. In addition to monthly and annual foreign trade publications, many special tabulations are undertaken on request and many users subscribe to a service which provides them with regular monthly or quarterly information on individual commodities.

Activities during the year included:

- Continuation of work associated with the adoption in Australia of a new international convention, entitled the Harmonized Commodity Description and Coding System, which will be used for the collection and presentation of detailed import and export statistics. The date for implementation of this system has been postponed from 1 January 1987 to 1 January 1988.
- Continued liaison with the Australian Customs Service to improve the timeliness and accuracy of export transactions data.
- Commencement of work concerned with the rationalisation of the collection of shipping statistics.
- Commencement of a review of interstate trade statistics.
- Publication of a series of information papers designed to provide users with a comprehensive overview of trade and shipping statistics.

#### Prices

In addition to the Consumer Price Index (CPI), the prices program undertakes the compilation of price indexes relating to imports and exports, inputs and outputs of manufacturing industry, and materials used in the building industry.

Activities during the year included:

- Continuation of work on reviewing the composition and weighting of the CPI, scheduled for completion in the second half of 1986. This review is taking into account the information on expenditure patterns obtained from the 1984 Household Expenditure Survey.

- Completion of the review and reweighting of the price index of materials used in manufacturing industry, including the development of separate 'materials used' price indexes for manufacturing subdivisions of the Australian Standard Industrial Classification. The new indexes were developed in response to concern expressed by users that the previous price indexes relating to materials used by manufacturers were not comprehensive and were outdated. The new set of indexes is comprehensive and the indexes are based on more up-to-date weighting patterns and improved and expanded samples of prices.
- Continuation of the development of a new computer processing system to be used in producing all the price indexes relating to imports, exports and the manufacturing and building industries. The first stage of this new system is expected to be commissioned in late 1986.
- Commencement of the review and reweighting of the index of materials used in house building. The aim of the review is to remove obsolete materials, to incorporate new materials used in present day house construction, and to re-establish the relative importance of the materials included in the basic weighting pattern of the index. The review is scheduled for completion in late 1986.

### **Public finance**

The major objective of the public finance program is to provide statistical information on revenue, outlay and financing transactions of Commonwealth, State, Territory and local governments and their subsidiary bodies.

In addition to a range of annual publications, the program is responsible for the compilation of quarterly statistics for inclusion in the national accounts and the provision of detailed financial statistics for individual local government authorities on magnetic tape and microfiche.

Activities during the year included:

- Implementation of a new system for deriving the public sector component of the quarterly national accounts estimates involving improved coverage, range of data collected and estimation methodology.
- Research into issues related to the compilation of statistics on public sector financial assets and liabilities.

### **Private finance**

The private finance program collects data on the lending activity and financial structure of banks, building societies, credit unions, finance companies, cash management trusts and superannuation funds. Several of the collections are undertaken in co-operation with authorities such as the Reserve Bank of Australia and State registrars of building societies and credit unions.

Activities during the year included:

- Continuation of work on the rationalisation of financial statistics. Particular attention was given to reviewing the statutory statistical collections conducted under the *Banking Act 1959* to ensure that they meet current requirements for information.

- Development and introduction of an improved annual survey of super-annuation.
- Introduction of a new quarterly statistical collection relating to public unit trusts. The results of this collection were first published in July 1986.

### Agriculture

The main projects in the agriculture program are an annual agricultural commodity census, various commodity surveys and the production of a range of derived statistics, including the value of agricultural commodities produced and the apparent consumption of foodstuffs and nutrients.

Activities during the year included:

- Commencement of negotiations between the ABS and the Bureau of Agricultural Economics (BAE) to seek ways of eliminating duplication between future agricultural finance surveys conducted by the ABS and the BAE farm surveys.
- Completion of the transfer of the monthly series of livestock products data from obsolete computer equipment to the ABS's Facom M382 to facilitate the use of the INFOS time series system. The first of the publications produced under INFOS was the January 1986 issue.
- Commencement of work to transfer, to a computer-based system, the compilation of statistics on the value of agricultural commodities produced. The system is expected to become fully operational during the latter half of 1986.
- Commencement in May 1986 of the transfer of the processing of the apparent consumption of foodstuffs and nutrients series to a micro-computer, with completion of the transfer anticipated by December 1986.

### Mining

The main element in this program is an annual census of the mining industry, conducted with the co-operation and assistance of State government mines departments. The census provides data on the structure and operations of the industry, comparable with those available in respect of manufacturing industry. The program also includes quarterly and annual estimates of mineral exploration undertaken.

Activities during the year included:

- Redevelopment of the forms dispatch and collection control system for the quarterly mineral exploration survey.
- Commencement of a comprehensive review of the mining program with a view to achieving a realistic balance between users' needs, respondent burden and available resources.

### Energy

This program produces statistics on energy and its usage in both the household and industrial sectors.

Activities during the year included:

- Conduct of a household energy survey in respect of 1985-86. The survey will provide statistics of ownership of domestic appliances, levels of household consumption of reticulated gas and electricity, and usage patterns for major domestic appliances.
- Pilot testing of questionnaires and procedures for a survey of energy use in the industrial sector (i.e. non-domestic usage) in respect of 1986-87. This survey will provide statistics on the quantity of fuels used, and the purpose of their use, by respective industry groupings.
- Publication of results from a survey of water-using appliances in private dwellings conducted in Victoria during October 1985.

#### **Business surveys**

This program includes a quarterly survey of actual and anticipated new fixed capital expenditure by private sector businesses and quarterly surveys of stocks, actual and anticipated manufacturers' sales, and company profits. These represent some of the principal quarterly indicators of economic activity in Australia. The program is also responsible for the production of enterprise statistics compiled from the Bureau's annual and periodic economic collections.

Activities during the year included:

- Partial implementation of a new computer processing system for the surveys of capital expenditure, stocks and operating surplus.
- Collection of data on the value of new assets acquired by businesses under finance lease arrangements. These data will be published in late 1986.
- Development of a publication on company profits which will be released on a quarterly basis from the September quarter 1986.

#### **Manufacturing**

The manufacturing program includes annual censuses of manufacturing and electricity and gas production and distribution, and monthly and quarterly surveys of manufacturing production.

Activities during the year included:

- A review of the collection strategy for the annual manufacturing census, undertaken in response to criticism of the burden placed on manufacturers by the requirement to fill up census forms. A number of improvements will be made to the forms as a result of the review. Further changes to both the forms and the collection strategy, which will significantly reduce the statistical reporting burden of future censuses, are anticipated.
- Development of a computer-based processing system for the monthly and quarterly surveys of manufacturing production.

#### **Retail and services industries**

This program includes monthly and quarterly surveys of retail sales, and periodic censuses or surveys of retail, wholesale and selected services industries.

#### Activities during the year included:

- Development of questionnaires and operating procedures for a retail census in respect of 1985-86. The approach adopted has been to substantially reduce both costs and respondent burden by requiring only a sample of retailers to provide the more detailed statistics. Those retailers not selected to participate in the sample will be asked to report basic information only.
- Determination of a broad outline for two surveys of selected services industries, the first planned for the 1986-87 reference year and the second planned for 1987-88. It is intended that the first survey will focus on the tourism and personal services industries, and the second on business services. The coverage of the two surveys was determined after discussions of needs and priorities with Commonwealth and State agencies, and with private sector industry associations. Discussions will continue during the development period to finalise detailed statistical requirements for the initial surveys and subsequently to evaluate the methodology used with a view to improving future surveys.

#### Construction

The main projects in the construction program are monthly statistics of building approvals and dwelling commencements as reported by local government and other approving authorities, quarterly surveys of building activity and of engineering construction activity, and a periodic survey of the construction industry.

#### Activities during the year included:

- The publication of monthly smoothed seasonally adjusted building approvals data and quarterly constant price building activity data.
- Commencement of design and implementation work associated with enhancing the construction other than building survey. The enhanced survey, to be known as the engineering construction survey, will be run quarterly commencing from the September quarter 1986. It will overcome deficiencies inherent in the construction other than building survey by taking account of work undertaken by the public sector and of private sector contracts valued at less than \$100 000.
- Conduct of the 1984-85 Construction Industry Survey: this involved collection of data from a sample of private sector businesses and all public sector organisations engaged in construction activity. For the first time, name and address information supplied by the Australian Taxation Office was used to improve the coverage of businesses engaged in the construction industry. The release of publications commenced in August 1986.

#### Transport

The transport program covers the collection and dissemination of monthly statistics on new motor vehicle registrations and road traffic accidents involving fatalities; quarterly statistics on road traffic accidents and interstate road freight movements; annual statistics on the rail transport industry; a triennial survey of motor vehicle use and an associated motor vehicle census; and a periodic survey of the transport industry.

#### Activities during the year included:

- Compilation of the first results from a survey of motor vehicle use and motor vehicle census in respect of the year ended 30 September 1985. The survey results include statistics of road vehicle usage by private and business vehicle owners including type of vehicle, distance travelled, area of operation, loads carried and fuel consumption. The motor vehicle census provides a count of vehicles, as at 30 September 1985, which were 'on register' with State or Territory motor vehicle registration authorities, classified by certain vehicle characteristics. These results will be published early in 1986-87.
- Publication of statistics from the first transport industry survey conducted in respect of 1983-84. The results include much-needed information about the structure and operations of Australian transport businesses. Also released were results from a survey of non-transport businesses (e.g. retailers, wholesalers and manufacturers) engaged in transport activity during 1983-84.

#### Tourism

The tourism program includes a quarterly survey of tourist accommodation activity and other periodic surveys.

#### Activities during the year included:

- The conduct of, and publication of results from, a census of licensed hotels without private facilities, and long-term caravan parks. The statistics provide users with information on the availability and utilisation of these types of accommodation.
- Implementation from the September quarter 1986 of a number of the recommendations contained in the 1985 report of user needs for tourism statistics. These recommendations were:
  - expansion of the scope of the survey of tourist accommodation to include long-term caravan parks;
  - collection of data on the number of guests arriving at hotels and motels; and
  - adoption of a 'star' grading classification. Gradings are allocated to hotels/motels according to a points system based on the number of rooms, facilities and services available to guests.

#### Science and technology

The science and technology project is responsible for the compilation and dissemination of statistics on research and experimental development (R&D). R&D data are collected from business enterprises and general government, private non-profit and higher education organisations. The all-sector aggregates which result from the R&D survey form the only comprehensive data on Australia's R&D effort.

The results of the 1984-85 R&D Survey are released in both preliminary and final publications. The preliminary publications covering each sector were released between May and October 1986, while the final publications covering each

sector are scheduled for release between October and November 1986, and a summary publication providing all-sector aggregates is scheduled for release by March 1987. The results of the smaller scale 1985-86 Inter-Year Estimates (IYE) R&D Survey, covering all sectors, are scheduled for release by April 1987.

The project also has a monitoring and co-ordinating role in the areas of science and technology statistics. Internationally the ABS has played a leading role in the development of Information, Communication and Computer Program (ICCP) statistics within the OECD. These statistics are being developed to provide measures of the impact, both economic and social, of the rapid advances in technology, particularly in the areas of telecommunications and micro-electronics, which are taking place at present in member countries.

### **Classification**

This program develops and maintains statistical classifications used by the ABS and other government agencies. Classifications, together with other conceptual standards, define and present in logical structures the data items (such as commodities) and the broader economic and other categories (such as industries and geographical areas) in respect of which statistics can be collected, compiled and published. Classifications are thus a major determinant of the usefulness of statistical output. The principal classifications covered by the program relate to industry, commodity, geographic and economic sectors, while standards defining statistical units have been developed.

Activities during the year included:

- Continued review of the 1983 edition of the Australian Standard Industrial Classification.
- Update of the Australian Standard Commodity Classification for 1984-85 and commencement of work on the 1985-86 edition. This classification enables comparable commodity statistics of imports, exports and domestic production to be compiled, and serves as a framework for improving comparability between commodity items in ABS statistical series.
- Revision of the Australian Pack Classification.
- Publication of the second edition of the Australian Standard Geographical Classification.
- Continued development of the Geographical Classification Framework.
- Continued participation in the review by the United Nations Statistical Office of the International Standard Industrial Classification and related classifications.

### **Integrated register**

The integrated register program is responsible for the maintenance of the ABS central register of businesses. Approximately 875 000 businesses are recorded on the register. Maintenance involves the application to these records of about one million changes each year. The register, by enabling consistent frameworks to be generated for ABS censuses and surveys, plays a key role in the provision of integrated economic statistics.

The major activity during 1985-86 was the updating of the retail sub-division of the register in preparation for the conduct of the 1985-86 Retail Census.

### **Economic statistics integration**

This program provides a service to other statistical programs by establishing and maintaining standard concepts and definitions for structural data items and units, and by providing training, co-ordination and research services in relation to the development and conduct of the ABS program of integrated economic censuses and surveys.

Activities during the year included:

- Continuation of a research program to maintain, review and update the standard definitions relating to the treatment of business units for statistical purposes, to provide for changes in business practice and for the progressive extension of economic censuses and surveys into new fields.
- Continuation of a program of staff training in the basic elements of integrated economic statistics.
- Publication of the first edition of a manual entitled *Standards for Statistical Units in Australian Integrated Economic Statistics* (ABS Catalogue No. 1231.0). The manual specifies the concepts, standard definitions and working rules for identifying and recording (on the ABS integrated register) establishments, enterprises and other classes of transactor-type statistical units from or about which information is collected by the ABS in its integrated economic censuses and surveys.
- Publication of an Information Paper entitled *Integration of Economic Statistics. The Conceptual and Operational Framework, Australia* (ABS Catalogue No. 1113.0). This paper provides a description of the nature of integrated economic statistics produced by the ABS, the need for and development of such statistics, the main features of the conceptual and operational infrastructure for the production of such statistics and the role of the Bureau's integrated register in that infrastructure.
- Commencement of work in preparation for the production of a special compendium publication on small business statistics to be published towards the end of 1986.

# **Demographic, Labour and Social Statistics**

Statistics are produced on many aspects of the Australian community—births, deaths, marriages, health, welfare, education, crime, employment and unemployment. A large amount of data is collected at the quinquennial censuses of population and housing, and other demographic, labour and social statistics are derived as by-products of administrative processes, from household surveys and from surveys of businesses.

## **Population census**

The eleventh national census of population and housing was conducted on 30 June 1986 after four years of planning and development. Approximately 38 000 temporary field staff were recruited and trained to deliver and collect census forms throughout the country. For the first time, the external territories of Christmas Island and the Cocos (Keeling) Islands were included in the census.

The census gained widespread public acceptance. From the outset there was extensive consultation with the public, culminating in a census awareness campaign launched in February 1986 to coincide with the commencement of recruiting for temporary field staff. The awareness campaign reached its peak in the week prior to 30 June 1986 thus providing maximum support for census field operations.

As in previous censuses, particular attention was given to the enumeration of Aboriginals and migrants. Special census field officers were appointed to inform Aboriginal communities and organisations about the census, and to establish suitable enumeration arrangements where required. For example, special census forms completed by interviewers (rather than by the respondents themselves) were used to enumerate the Aboriginal population in some remote areas.

Measures taken to assist persons with language difficulties included the use of bi-lingual census collectors; the preparation and distribution of explanatory brochures printed in different languages; and the provision of a telephone interpreter service. This service was available (through Telecom's '008' facility) at the cost of a local call from anywhere in Australia.

Processing of completed census forms is being undertaken at a data transcription centre established in Sydney. Up to 1 200 persons will be employed during the peak data coding and transcription periods, with all processing expected to be completed by June 1987.

First results from the census are expected to be released in February 1987. Output, in the form of statistics, maps and information papers, will be broadly comparable with that produced from the 1981 Census, but there will be some change in the balance between printed output, microfiche and magnetic tape.

Compared with the 1981 Census, more comprehensive statistics will be available on families, language, ethnic background and education. With the adoption of the Australian Standard Classification of Occupations, improvements will also be evident in statistics relating to the occupation of the workforce. Most census output will continue to be based on the actual location of the population on census night, but there will be a greater range of statistics available on the basis of the usual residence of the population.

As a result of a reduction in the ABS's budget, and contrary to the practice in recent censuses, no preliminary processing of 1986 Census forms will be undertaken. It is planned to revise the June 1986 State population estimates, on the basis of the 1986 Census counts, in September 1987. Revised population estimates for local government authority areas should be released by the end of 1987.

## Labour

The labour program provides statistical information on the components and characteristics of the labour force, the operations of the labour market and conditions of employment.

The ABS conducts a monthly population survey which provides estimates of employment and unemployment derived from a sample of households across the whole of Australia. In most months of the year the population survey also seeks data on more detailed aspects of the labour force including, in 1985-86, persons not in the labour force and persons marginally attached to the labour force; discouraged job-seekers; unemployed persons; weekly earnings of employees and non-wage employment benefits received; labour mobility; labour force experience; educational attainment; apprentices; attendance at educational institutions; transition from education to work; multiple job holding; persons who left the labour force in the last twelve months; and successful and unsuccessful job search experience.

The program also operates an integrated system of employer surveys which provides quarterly data on employed wage and salary earners, average weekly earnings, job vacancies and overtime, and annual data on the distribution and composition of employee earnings and hours paid for.

A monthly index of award rates is produced from information provided by wage fixing authorities.

Other activities during the year included:

- Implementation of a decision to conduct the May survey of employees on an annual basis. This survey obtains data on the distribution and composition of employee earnings and hours, and on award coverage.
- Publication of *A Guide to Labour Statistics* (ABS Catalogue No. 6102.0), a companion volume to *Labour Statistics, Australia* (ABS Catalogue No. 6101.0). The Guide provides information on the concepts, sources and methods of collection of labour statistics as well as details concerning the comparability of labour market data available from various sources.

- Further refinement of the annual publication *Labour Statistics, Australia* (ABS Catalogue No. 6101.0) to enhance its utility as a general reference source for labour market data.
- Publication of a discussion paper *Statistics on Wages, Earnings, Income and Labour Costs—A Guide to their Concepts, Measurement and Uses*.
- Introduction of the newly developed Australian Standard Classification of Occupations into the labour force survey and the May 1986 Survey of Employee Earnings and Hours.
- Preparations for the conduct during 1986-87 of a survey covering the major labour cost items—wages and salaries, superannuation, workers' compensation and payroll tax.
- Continuation of work on the development of a full survey of labour costs through the conduct of a number of pilot tests aimed at determining the feasibility of collecting a wider range of data using alternative collection methodologies.

## Social

The social program includes statistics relating to income, expenditure, welfare, housing, health, education, crime, justice and other social matters. Within the program there are three main work streams: the design and development of social surveys and the processing, dissemination and analysis of survey data; the compilation and analysis of data relating to areas of social concern and specific social groups; and the production of integrated social and demographic statistics based on standard statistical concepts, definitions and classifications. Through the social statistics program, the ABS makes a concerted effort to encourage the adoption of its social statistics concepts, definitions and classifications in statistical and related work undertaken by other agencies.

Publications released during the year included final results from the following social surveys:

- Health survey (1983).
- Survey of crime victims (1983).
- Children's immunisation survey (November 1983).
- New South Wales survey of children's denial health (1983).
- Household expenditure survey (1984).
- Survey of ex-service personnel (1984).
- Child care survey (November 1984).
- Victorian survey on travel to work, school and shops (1984).
- Queensland survey on participation in secondary education (1984).
- South Australian surveys on bicycle usage and safety and on participation in non-formal adult education (both 1984).
- Survey on holidays taken by Tasmanian families (1984).

Results were also released from a May 1984 survey of health insurance cover held by employed wage and salary earners in the eight Australian capital cities, and unidentified unit record data from a 1982 families survey were made available to users on magnetic tape.

Other survey activities included the following:

- Finalisation of the design and testing of a survey of income distribution for 1986.

- Development work for a survey of disability and ageing, and a survey of housing quality and access, scheduled to be conducted in 1988.
- Conduct of the following State-specific surveys in 1985:
  - New South Wales survey on health risk factors;
  - Queensland survey on non-commercial fishing, and on smoking behaviour of adults;
  - Western Australian survey on alcohol consumption;
  - South Australian survey on crime, and prevention of crime in the community; and
  - Northern Territory survey on recreational travel of Northern Territory residents.

The publication of statistical series dealing with social topics such as the courts, hospital morbidity and schools continued on a regular basis. However, during 1985-86 several new activities of significance were undertaken. These included:

- The establishment, within the social statistics program, of an Aboriginal Statistics Unit.
- Publication for the first time of national statistics on tertiary education and of a Victorian social indicators statistical bulletin.
- Publication of statistics on youth and crime victims in Victoria.
- Release of a statistical publication (jointly with the South Australian Department of the Premier and Cabinet) on accommodation for the aged in South Australia.

Work on standards and classifications during the year included:

- Finalisation and release of the Australian National Classification of Offences.
- Finalisation of the Australian Standard Classification of Occupations.
- Provision of advice and assistance in connection with standards being developed in the occupational health and safety field by the National Occupational Health and Safety Commission.

## **Demography**

Data produced by this program include statistics on births, deaths, marriages, divorces, overseas arrivals and departures and internal migration. Estimates are made of the geographical distribution of the population by the characteristics of age, sex and birthplace. The program also publishes, on a regular basis, forward projections of the population according to specified demographic assumptions.

Activities during the year included:

- Development of a survey on family formation to be conducted in September 1986. This survey will provide information on the pattern of family formation, including marriages and fertility expectations, which will be used in the compilation of population projections.
- Completion of preparatory work for the re-basing of population estimates subsequent to the 1986 Census of Population and Housing.
- Development of methodology for small area population estimates of the marital status of the population.
- Completion of a major redevelopment of the computer processing system for population estimates and projections. This new system has resulted in more efficient use of computer resources.

## Other Activities

### Computer services

The major computer equipment currently installed in the ABS consists of a Facom M382 mainframe computer located in the ABS Central Office and linked to each of the State Offices through a DEC-based communications network. The network provides access to the central computing installation through terminals and remote job entry stations. Data storage is on-line with primary storage on disk, and secondary storage on a large mass storage device. The central installation also includes a Control Data 180/810 and a 3500 computer.

A statistical data processing environment has been established which makes significant use of generalised applications software including fourth generation language (4GL) type facilities. The ABS uses ADABAS to provide database management and data dictionary facilities on the M382. ADABAS supports hierarchic and network data structures and provides powerful generalised random access, as well as sequential access capability. The ABS data dictionary is a locally developed extension of the ADABAS data dictionary. Use of ABS data by individual applications systems is controlled through the data dictionary.

During 1985-86 reviews were conducted of a number of the larger statistical applications systems being processed on the ABS's central computing installation with a view to reducing the computer resources used by these systems. A number of significant improvements were made, some within individual applications and some on a more global basis, affecting all users of the installation. As a result of these improvements in efficiency, overall usage of the central computing installation was maintained at levels obtaining in the previous year despite an increase during 1985-86 in the number of applications being processed.

During the year, major applications systems for the processing of statistics on foreign investment, foreign participation, building approvals and commencements, research and development and demographic estimates and projections were completed, as was redevelopment of the processing system for trade statistics to accommodate changes made to systems operated by the Australian Customs Service. In addition, major subsystems were introduced for the processing of input data for the enterprise surveys collections and the 1986 Census of Population and Housing.

Enhancements to the M382 central computer configuration, including increases in data storage and improvements to the software facilities available, continue to be made in response to special requirements or to a more general need for improvements. Action is currently being taken, in a program extending over two to three years, to replace obsolete visual display terminals with modern terminals having better ergonomic characteristics.

The ABS has continued to install micro-computers for a variety of statistical and administrative tasks, including some 90 machines for a coding task in connection with the processing of 1986 Census of Population and Housing forms.

As a result of a review of strategic directions for computing services in the ABS, it has been decided that whilst no immediate action is indicated for any major upgrade to the central computing installation, it is necessary to proceed with plans for the enhancement or replacement of the data communications network. The network, which is nearing the end of its economic life, is carrying a heavier traffic load than it was designed for, and does not provide all the facilities now needed to properly support the ABS's Australia-wide statistical and administrative processing. It is expected that appropriate submissions will be made within the next year seeking approval for the replacement of the existing network.

The increasing use of small-scale technology in the ABS is causing some difficulties in providing the level of staff training required. High loss rates of both specialist computing staff and statistical subject matter staff require continuation of the extensive training program covering facilities offered by the central computing installation, leaving few resources for the added task of providing training in micro-computer-based facilities. Within financial constraints, and where practicable, use is made of the training offered by commercial organisations for this purpose.

### **Population survey operations**

The population survey operations program is responsible for the development and conduct of all ABS household surveys which use trained interviewers to collect information from survey respondents. The program also provides personnel to carry out interviewer-enumerated components of economic statistics collections. A recent example of this type of collection methodology in an economic statistics context was the interviewer-enumerated component of the 1984-85 Construction Industry Survey, used to collect information from a sample of the smaller construction businesses.

A full description of the ABS Program of Population Surveys appeared in the ABS Annual Report for 1983-84, at pages 7 to 11.

### **Statistical services**

This program provides a specialised service in sampling, time series analysis and other mathematical statistical techniques within the ABS and, on a consultative basis, to other Commonwealth, State and overseas agencies.

Examples of this type of external service provided during 1985-86 are:

- Australian Government Retirement Benefits Office — assistance with questionnaire design and sample selection methodology for a survey of invalidity pensioners.
- Department of Employment and Industrial Relations — assistance with sample design for a survey of Community Youth Support Scheme projects.
- Department of Social Security — provision of advice on the appropriate method for analysing data from a longitudinal study of the Department's employees.
- Metropolitan Transit Authority of Victoria — assistance with the design of a survey to estimate numbers of passengers travelling on the Authority's buses and trams, together with details of frequency and timing of journeys.

- South Australian Department of Transport — assistance with questionnaire and sample design for a survey of commercial vehicle fleet operators to study factors affecting fuel use.
- Papua New Guinea Statistics Office — assistance with the design of a household expenditure survey for Papua New Guinea.

The program also encompasses research into statistical theory and methods, including techniques for conducting sample surveys. During the past year the ABS has been investigating overseas experience in conducting business surveys by telephone, and, in consultation with a visiting international expert from Statistics Canada, has also undertaken considerable research on statistical time series.

### **Data management**

The data management program is responsible for improving the organisation of the ABS's statistical data holdings in order to increase their usefulness and reduce costs. Its primary function is to initiate review of, develop recommendations on, and monitor the implementation of policies, guidelines and procedures with the following objectives:

- Adoption of standardised and integrated definitions and classifications of the ABS's data.
- Security of the data against unauthorised access or disclosure.
- Ensuring the physical and logical integrity of the data.
- Adoption of appropriate procedures for storage and retention of the data.
- Efficient management of the data through all stages of producing statistics (e.g. collection, processing, compilation and dissemination).

The data management program also undertakes activities associated with the development of the ABS's statistical computing systems, provides a secretariat service to the ABS Data Management Steering Committee and undertakes other specific projects and investigations as required by ABS management.

### **Management services**

As recommended by the Joint Management Review (JMR) of Management Services and Top Management of State Offices conducted during 1984-85, management services in the ABS are now handled in three Branches in Central Office: Personnel Management; Resources Management; and Management Review.

Personnel Management Branch is responsible for the operational aspects of personnel management, human resource development and development of personnel policies and practices (including equal employment opportunity and industrial democracy). It is also responsible for establishment reviews, job design and classification standards, and office systems analysis.

Resources Management Branch is responsible for staff and financial budgeting, internal audit, the development of computer-related systems to facilitate management services work, and the provision of management information to

the organisation. The Branch is also responsible for the corporate planning function in the ABS, day-to-day finance matters and the provision of a wide range of office services.

Management Review Branch is responsible for conducting reviews of existing management services systems and documentation. These reviews are aimed at simplifying procedures wherever possible; investigating possibilities for devolution of responsibilities to line managers; and eliminating low priority work altogether. The principal objective is to increase the effectiveness of existing resources and to release resources for redeployment to higher priority work. The Branch is also responsible for co-ordinating the delivery of administrative support facilities to major ABS projects. During the year the Management Review Branch devoted considerable resources to the finalisation of administrative arrangements for the conduct of the 1986 Census of Population and Housing.

Coping with the ever increasing volume of operational work and pressures to implement administrative reforms within existing resources has provided a major challenge to ABS management services staff. Activities during the year were again closely tied to the recommendations of the JMR and to implementing the Government's public service reform initiatives. Work is proceeding on development of a corporate plan for the ABS, formal delegations have been reviewed, resource management procedures have been reassessed and the top structures of the ABS State Offices reorganised. In addition, existing ABS management processes have been reviewed with the aim of introducing formal program budgeting in the ABS.

Training in statistical, managerial, computing and clerical skills increased during the year. Officers spent a total of 127.7 staff years (or 3.6 per cent of total staff usage) attending courses, as follows:

| Activity                            | Staff Years |
|-------------------------------------|-------------|
| Paid leave under studies assistance | 33.8        |
| In-house training                   | 76.6        |
| External courses and conferences    | 11.2        |
| Interchange and other schemes       | 6.1         |

The ABS specialist training units, located in the personnel management and computer services areas, together spent a total of 38 staff years during 1985-86 conducting a variety of general and specialised training courses as well as assessing training needs, designing new training programs and/or improving existing ones.

#### **Management improvement plan**

In response to the Government's directive that each department, and certain statutory authorities, should prepare an annual Management Improvement Plan (MIP), the ABS prepared its first MIP in respect of 1985-86. The MIP will help to ensure that ABS resources are allocated in accordance with Government priorities; that key issues and areas warranting improvement are identified; and that remedial action is taken where necessary. The MIP was endorsed by the Minister Assisting the Treasurer (The Hon. C.J. Hurford) on 5 February 1986.

The MIP identified three main issues being addressed by the ABS: meeting the demand for statistics in a climate of resource constraint; initiatives being taken regarding the use of technology to improve efficiency; and the steps being taken to implement the findings and recommendations of the JMR of management services in the ABS and the top management of ABS State Offices.

### **Industrial democracy and equal employment opportunity**

In accordance with the requirements of the *Public Service Reform Act 1984*, on 1 October 1985 the ABS submitted an Industrial Democracy (ID) Plan and an Equal Employment Opportunity (EEO) Program to the Public Service Board. These documents included policy statements formalising the ABS's commitment to the principles of industrial democracy and equal employment opportunity.

A basic element of the ID policy of the ABS is to ensure that the conditions and opportunities necessary for the involvement of staff and their representatives in the management of Bureau activity exist. The primary aim of the EEO policy is to eliminate factors, within the Bureau's control, which are identified as reducing a person's chance of either competing for jobs on an equal basis, or developing his/her full potential within the organisation.

The ID and EEO policies of the ABS were established in consultation with relevant unions and were ratified by the ABS's National Consultative Council (NCC). Consultation is continuing on action plans to implement the policies and objectives included in the ID Plan and the EEO Program. It is expected that agreed action plans will be submitted to the Public Service Board by October 1986.

A campaign to increase the awareness of all ABS staff of the principles of industrial democracy commenced in 1985, and this is nearing completion. Formal mechanisms to facilitate consultation with unions, including the NCC and local Consultative Councils in each ABS State Office, have been introduced progressively since mid-1985.

Resources have been provided in all ABS Offices to undertake work connected with EEO. Awareness campaigns will commence during 1986, as will identification and elimination of any discriminatory practices and procedures. The results of the EEO Survey conducted by the Public Service Board in June 1986 will be particularly useful in helping to identify potential areas of discrimination against members of the four groups specified in the *Public Service Reform Act*, viz: women; Aboriginals and Torres Strait Islanders; people with disabilities; and people from non-English speaking backgrounds.

### **Co-ordination**

The ABS maintains contact with Commonwealth and State government departments and authorities in order to be aware of their statistical activities, their use of existing statistical collections and their current and future statistical needs.

The Bureau also plays a continuing role in developing greater co-ordination of statistical activities across government agencies. In particular, it encourages the adoption of uniform standards and practices and fosters a co-ordinated approach to statistical development.

An important aspect of this work is the outposted officer service, through which ABS officers are located in other government departments and agencies. In addition to the ongoing outpostings, from time to time officers are outposted to provide short-term assistance on specific tasks for other departments.

Reviews of existing and proposed statistical collections by other Commonwealth departments and agencies, as required under the ABS statistical co-ordination arrangements, continued throughout the year. Each of these reviews involves the production of a report, prepared jointly by officers of the ABS and the agency directly responsible for the collection concerned. The main objectives of the review process are to ensure the compatibility of the statistics produced with data from other sources, the statistical quality of the work, the avoidance of duplication and the minimisation of respondent burden. The importance of the co-ordination of Commonwealth Government statistical activities in achieving these objectives was recognised by the Government in its business regulation reform initiative.

Reduction of respondent burden and avoidance of duplication were then identified as priority areas of concern in the collection of statistics from businesses and, early in 1986, departments and authorities were reminded of their obligations under the ABS statistical co-ordination arrangements outlined above. In addition, major business organisations were asked to advise the ABS of any cases of apparent duplication of statistical activities of which they were aware. To date no such cases have been brought to the attention of the ABS.

During 1985-86, joint reports were completed for 24 collections (12 new and 12 existing) conducted by seven agencies. As a result of the joint report process, one proposed collection did not proceed because the joint report highlighted alternative data sources. Improvements were made to most of the remainder of the new collections, which were then considered to be satisfactory from a statistical co-ordination viewpoint. Following completion of the joint report prepared for several transport-related statistical collections, some major changes were recommended. These are expected to result in a reduction in the number of statistical questionnaires to be completed by respondents.

An integral feature of the statistical co-ordination arrangements is the establishment and maintenance by the ABS of a central register of Commonwealth statistical collections. Besides providing a framework of information for the purposes of co-ordinating collections by departments and authorities, this register forms the basis of a publication *Register of Commonwealth Statistical Collections, 1985* (ABS Catalogue No. 1114.0) released in July 1986, listing all Commonwealth statistical data collections and is designed to serve as a guide to collection activities and available statistics.

At the State level, the ABS participates in the work of bodies established by State governments to co-ordinate the statistical activities and requirements of their departments and agencies. These bodies provide a priority-setting mechanism and means of formulating a uniform State view on statistical requirements and other issues, and constitute a source of valuable advice and feedback on ABS work program proposals and activities in general.

## **Freedom of Information Act**

Facilitating access to available statistical information, subject to the confidentiality provisions of the Census and Statistics Act, is of course a major function of the ABS and application of the provisions of the Freedom of Information (FOI) Act within the ABS needs to be viewed against that background. The table below provides details of FOI activities during the years 1982-83 to 1985-86 inclusive.

### **FOI ACTIVITIES 1982-83 TO 1985-86**

|   | 1982-83(a) | 1983-84   | 1984-85   | 1985-86   |
|---|------------|-----------|-----------|-----------|
|   | (number)   |           |           |           |
| <b>Requests received</b>                          |            |           |           |           |
| —for statistical information                      | —          | 9         | 15        | 15        |
| —for personal papers                              | 1          | 2         | 9         | 3         |
| —for administrative documents                     | —          | 5         | 5         | 5         |
| <b>Total</b>                                      | <b>1</b>   | <b>16</b> | <b>29</b> | <b>23</b> |
| <b>Decisions made</b>                             |            |           |           |           |
| —access granted in full                           | —          | 6         | 14        | 7         |
| —access granted in part                           | —          | 7         | 7         | 7         |
| —request transferred to another agency            | —          | 3         | 2         | 2         |
| —request withdrawn                                | —          | —         | 2         | 3         |
| —access refused (b)                               | —          | —         | 3         | 1         |
| —documents not in existence                       | 1          | —         | —         | 1         |
| <b>Total</b>                                      | <b>1</b>   | <b>16</b> | <b>28</b> | <b>21</b> |
| <b>Decisions outstanding at end of year</b>       |            |           |           |           |
|   | —          | —         | 1         | 3         |
| <b>Review of decisions by principal officer</b>   |            |           |           |           |
| — decision upheld                                 | —          | 1         | 1         | 2         |
| <b>Total</b>                                      | <b>—</b>   | <b>1</b>  | <b>1</b>  | <b>2</b>  |
| <b>Appeals to Administrative Appeals Tribunal</b> |            |           |           |           |
| —appeal disallowed                                | —          | —         | —         | 1         |
| <b>Total</b>                                      | <b>—</b>   | <b>—</b>  | <b>—</b>  | <b>1</b>  |

(a) Seven months 1 December 1982 to 30 June 1983. (The FOI Act came into operation on 1 December 1982.)

(b) In accordance with the provisions of sections 38, 40, 41, 43 and 45 of the FOI Act.

All of the requests were responded to within the statutory time limit. In 1985-86 the average time taken to respond was 23 days and a total of \$464.80 was collected in charges, although some of this related to charges levied in 1984-85.

Responsibility for matters relating to the operation of the FOI Act within the ABS is exercised by the Co-ordination Branch in Canberra. Authority for decision-making under the Act has been delegated to the Assistant Statistician (a Senior Executive Service, Level 1 officer) in charge of this Branch. However, comprehensive information on the Act has been supplied to all ABS staff with an instruction that all FOI requests should be referred to Co-ordination Branch immediately they are received. Officers of the Branch have continued to attend regular meetings of the FOI Practitioners' Forum arranged by the Public Service Board, as well as training courses run in conjunction with the Attorney-General's Department. Other than the foregoing, no special arrangements have been found necessary.

Work entailed in implementing provisions of the FOI Act has engaged about half of the time of one middle-level officer during the year, plus the attention from time to time of a number of other officers — approximately one staff year in total.

#### Public relations

During 1985-86 the Public Relations Unit (PRU) played a central role in the planning and implementation of 'Census 86', the \$2.2 million national public awareness campaign for the 1986 Census of Population and Housing. In the initial stages, the PRU oversaw the establishment and operations of a special public relations cell with specific responsibility for Census 86. This cell conducted the campaign, which was designed to improve the quality of responses to census questions by fostering more widespread public understanding and acceptance of the importance of the project. The campaign was very successful in generating strong media and community support and made a significant contribution to the successful conduct of the census.

Other activities during the year were directed mainly towards improving the quality and effectiveness of ABS communication with the public. While the priority audience for ABS public relations activities comprises respondents to the Bureau's statistical collections, public relations projects aimed at wider audiences were also undertaken during the year. An example of the latter type of project is a campaign designed to inform potential users of statistics about the recently introduced ABS electronic data dissemination services — VIATEL and AUSTATS. Products developed by the PRU ranged from media liaison campaigns to brochures, booklets and single-page approach letters for new statistical collections.

Two major projects aimed primarily at business respondents were the development and implementation of information and publicity strategies for the 1985-86 Agricultural Census and the 1985-86 Retail Census.

The PRU also produced several static exhibition packages, and ABS recruiting material including an audio-visual presentation designed for screening on university and college campuses.

Considerable effort was devoted during the year to evaluating the effectiveness of public relations projects in reaching particular audiences. In this context the ABS has retained the Communication Advisory and Research Enterprise (based at the Canberra College of Advanced Education) in a consultancy role to review the design and production of the forms used in ABS statistical collections. Collection forms represent a major 'public face' for the Bureau and the review has emphasised the need for a sharper focus on the critical relationship between form design and the quality of the data collected. In addition to this more general review, specific assistance was provided in connection with the design of collection forms used for the 1985 Survey of Motor Vehicle Use and the 1985-86 Retail Census.

# Appendix 1

## DISTRIBUTION OF OPERATIVE STAFF: 1985-86

*Average monthly staff numbers, 1985-86(a)*

| <i>Program</i>                           | <i>Canberra</i> | <i>NSW</i> | <i>Vic</i> | <i>Qld</i> | <i>WA</i>  | <i>SA</i>  | <i>Tas</i> | <i>NT</i> | <i>Total</i> |
|--|-----------------|------------|------------|------------|------------|------------|------------|-----------|--------------|
| Executive                                | 30              | 4          | 3          | 3          | 4          | 4          | 4          | 1         | 53           |
| Information Services                     | 83              | 27         | 25         | 19         | 13         | 13         | 7          | 4         | 191          |
| National Accounts                        | 50              | 2          | 1          | ..         | ..         | ..         | ..         | ..        | 53           |
| International Accounts                   | 77              | ..         | ..         | ..         | ..         | ..         | ..         | ..        | 77           |
| Trade                                    | 78              | ..         | ..         | 2          | 9          | 2          | 6          | ..        | 97           |
| Prices                                   | 54              | 17         | 16         | 9          | 8          | 7          | 5          | 3         | 119          |
| Public Finance                           | 33              | 12         | 13         | 8          | 6          | 6          | 4          | ..        | 82           |
| Private Finance                          | 36              | ..         | ..         | ..         | ..         | ..         | ..         | ..        | 36           |
| Agriculture                              | 28              | 28         | 26         | 20         | 17         | 12         | 7          | 1         | 139          |
| Mining                                   | 4               | 6          | 3          | 4          | 2          | ..         | 1          | 1         | 21           |
| Energy                                   | 6               | 2          | ..         | ..         | ..         | ..         | ..         | ..        | 8            |
| Business Surveys                         | 40              | 9          | 7          | 5          | 2          | 3          | 1          | 1         | 68           |
| Manufacturing                            | 18              | 37         | 35         | 12         | 10         | 10         | 3          | 1         | 126          |
| Retail and Services Industries           | 18              | 22         | 14         | 10         | 7          | 6          | 4          | ..        | 81           |
| Construction                             | 23              | 32         | 19         | 8          | 8          | 7          | 5          | 2         | 104          |
| Transport and Tourism                    | 21              | 13         | 10         | 17         | 8          | 6          | 4          | 3         | 82           |
| Science and Technology                   | 9               | ..         | ..         | ..         | ..         | ..         | ..         | ..        | 9            |
| Classification                           | 21              | 1          | 1          | 1          | 1          | 1          | ..         | ..        | 26           |
| Integrated Register                      | 25              | 53         | 39         | 25         | 15         | 12         | 4          | 2         | 175          |
| Economic Statistics Integration          | 8               | ..         | ..         | ..         | ..         | ..         | ..         | ..        | 8            |
| Economic Censuses System                 | 17              | 12         | 6          | 3          | 2          | 1          | 1          | ..        | 42           |
| Population Census                        | 75              | 7          | 4          | 5          | 5          | 4          | 2          | 3         | 105          |
| Labour                                   | 70              | 40         | 27         | 16         | 10         | 10         | 7          | 3         | 183          |
| Social                                   | 88              | 29         | 20         | 27         | 10         | 12         | 6          | 1         | 193          |
| Demography                               | 27              | 13         | 12         | 7          | 5          | 5          | 3          | 1         | 73           |
| Computer Technical Services and Planning | 93              | 1          | ..         | ..         | ..         | ..         | ..         | ..        | 94           |
| Computer Applications                    | 123             | 13         | 9          | 11         | 12         | 13         | 12         | ..        | 193          |
| Computer Operations and Software         | 140             | 49         | 41         | 33         | 25         | 22         | 15         | ..        | 325          |
| Population Survey Operations             | 30              | 38         | 34         | 34         | 17         | 25         | 8          | 4         | 190          |
| Statistical Services                     | 41              | 3          | 6          | 3          | 4          | 6          | 3          | ..        | 66           |
| Data Management                          | 8               | 1          | 1          | 1          | 1          | 1          | ..         | ..        | 13           |
| Time Series                              | 26              | ..         | ..         | ..         | ..         | ..         | ..         | ..        | 26           |
| Management Support                       | 198             | 48         | 44         | 30         | 22         | 25         | 16         | 5         | 388          |
| Resource Management                      | 18              | 1          | 1          | 1          | ..         | 1          | ..         | ..        | 22           |
| Personnel Development                    | 19              | 4          | 5          | 3          | 4          | 1          | 2          | ..        | 38           |
| Co-ordination                            | 33              | 5          | 6          | 2          | 2          | 2          | 2          | ..        | 52           |
| <i>Total</i>                             | <i>1 668</i>    | <i>529</i> | <i>428</i> | <i>319</i> | <i>229</i> | <i>217</i> | <i>132</i> | <i>36</i> | <i>3 558</i> |

(a) Comprises full-time staff and part-time staff at their full-time equivalent. Excludes staff on long service leave, extended sick leave, etc for periods of twelve weeks or longer. Where officers undertake duties within more than one program, they have been classified to that program which occupies most of their time. The symbol .. can mean either 'less than half' or 'nil'.

## Appendix 2

### TOP STRUCTURE AND STAFF OF THE ABS

Australian Statistician  
*I. Castles, OBE*

*Division*

Economic Accounts  
*F.J. von Reibnitz*

Demography, Labour and Social  
*F.D. Bagley*

Economic Censuses and Surveys  
*R.P. Green (acting)*

Statistical and User Services  
*D.J. Trewin*

Computer Services  
*E.W.W. Miller*

Co-ordination and Management  
*R.W. Edwards*

Deputy Statistician  
*W. McLennan*

*Branch*

National Accounts  
*K.R. Blackburn*  
Public and Private Finance  
*D.C. Efford*  
Prices  
*L.C. Clements*  
International Accounts  
*B.J. Dunlop*

Social  
*M.D. Giles*  
Labour  
*G. Sarossy*  
Population Census and Demography  
*J.K. Cornish*

Trade and Transport  
*P.G. Howell*  
Manufacturing and Distribution  
*I.R. King (acting)*  
Construction and Business Surveys  
*A.J. Whittington*

Statistical Services  
*D.C. Leaver*  
User Services  
*T.J. Skinner*  
Data Services  
*J. Struik (acting)*

Technology Planning  
*B.H. Crook*  
Operations and Software  
*J.V. Crocker*  
Applications  
*D.A. Harding*  
Technical Services  
*W.O. Egan*

Resources Management  
*R.A. Phillips (acting)*  
Personnel Management  
*J.W. Maurer*  
Management Review  
*C.J. Dent (acting)*  
Co-ordination  
*J.E. Dulley*

## TOP STRUCTURE AND STAFF OF THE ABS—*continued*

*The offices in State capitals and in Darwin are headed by:*

|           |                      |
|-----------|----------------------|
| Sydney    | <i>J.F. Wilson</i>   |
| Melbourne | <i>E.D. Bourke</i>   |
| Brisbane  | <i>D.N. Allen</i>    |
| Perth     | <i>W.M. Bartlett</i> |
| Adelaide  | <i>G.C. Sims</i>     |
| Hobart    | <i>G.D. Cocking</i>  |
| Darwin    | <i>R.J. Rogers</i>   |

# Appendix 3

10<sup>6</sup> mill

## EXPENDITURE AND RECEIPTS: 1984-85, 1985-86 AND ESTIMATES: 1986-87 (\$'000)

|  | <i>Actual</i><br>1984-85 | <i>Actual</i><br>1985-86 | <i>Estimated</i><br>1986-87(a) |
|--|--------------------------|--------------------------|--------------------------------|
| <b>EXPENDITURE</b>   |                          |                          |                                |
| Salaries   | 81 753                   | 88 871                   | 107 155                        |
| Overtime   | 808                      | 864                      | 1 010                          |
| <i>Total subdivision 1</i>   | <b>82 561</b>            | <b>89 735</b>            | <b>108 165</b>                 |
| Travel and subsistence   | 1 990                    | 2 499                    | 3 539                          |
| Office requisites  | 5 825                    | 7 901                    | 5 282                          |
| Postage and telephones   | 4 704                    | 5 271                    | 6 000                          |
| Computer services  | 3 836                    | 3 659                    | 3 611                          |
| Incidentals  | 2 493                    | 4 805                    | 6 427                          |
| Fringe benefits tax  | —                        | —                        | 82                             |
| <i>Total subdivision 2</i>   | <b>18 848</b>            | <b>24 135</b>            | <b>24 941</b>                  |
| Payments to agents   | 5 089                    | 6 983                    | (b)28 155                      |
| Compensation and legal expenses  | 249                      | 450                      | (c)1 051                       |
| <i>Total subdivision 3</i>   | <b>5 338</b>             | <b>7 433</b>             | <b>29 206</b>                  |
| <i>Total division</i>  | <b>106 747</b>           | <b>121 303</b>           | <b>162 312</b>                 |
| <i>Plant and equipment</i>   | <i>(d)10 026</i>         | 2 620                    | 4 196                          |
| Special Appropriation—   |                          |                          |                                |
| Australian Statistician  | 78                       | 23                       | 92                             |
| Australian Statistics Advisory Council                                 | 12                       | 15                       | 17                             |
| <i>Total Special Appropriation</i>                                     | <b>90</b>                | 38                       | 109                            |
| <i>Total expenditure</i>   | <b>116 862</b>           | <b>(b)123 961</b>        | <b>(b)166 617</b>              |
| <b>RECEIPTS</b>  |                          |                          |                                |
| Proceeds from 'for sale' publications(e)                               | 487                      | 458                      | 566                            |
| Proceeds from sale of special compilations of foreign trade statistics | 157                      | 185                      | 200                            |
| Recovery of costs for use of ABS computers by client organisations     | 11                       | 13                       | 12                             |
| Recovery of telephone costs from non-ABS tenants of Cameron Offices    | —                        | 204                      | —                              |
| Miscellaneous  | 257                      | 307                      | 182                            |
| <i>Total receipts</i>  | <b>912</b>               | <b>1 167</b>             | <b>960</b>                     |

(a) As included in Appropriation Bills Nos 1 and 2 and Special Appropriations.

(b) Includes expenditure associated with the conduct of the 1986 Census of Population and Housing (totalling \$8.452m in 1985-86 and \$46.696m in 1986-87).

(c) Includes compensation payments to former employees incorporated, in earlier years, in the salaries item.

(d) Principally outlay associated with computer enhancement program.

(e) Excludes receipts by AGPS from sales of ABS publications.

Note: Any differences between totals and sums of components are due to rounding.

## Appendix 4

### DISTRIBUTION OF EXPENDITURE BY PROGRAM: 1983-84 TO 1985-86

The following table shows total ABS expenditure for the years 1983-84 to 1985-86 allocated to statistical and service programs. The allocation of certain components of expenditure, eg salaries, is based on actual resource usage by individual programs but others, eg postage and telephones, are distributed on a pro rata basis. The table also shows an estimate of the cost of individual statistical programs, after allocating costs of service programs according to estimates of their use by individual statistical programs. Some of the year-to-year movements reflect the timing of periodic collections.

| Program                         | Estimated expenditure |        |          |         |        |          |         |        |          |
|---------------------------------|-----------------------|--------|----------|---------|--------|----------|---------|--------|----------|
|                                 | 1983-84               |        |          | 1984-85 |        |          | 1985-86 |        |          |
|                                 | Direct                | \$'000 | Total(a) | Direct  | \$'000 | Total(a) | Direct  | \$'000 | Total(a) |
| Executive                       | 2 498                 | ..     | ..       | 2 705   | ..     | ..       | 2 832   | ..     | ..       |
| Information Services            | 5 212                 | ..     | ..       | 5 844   | ..     | ..       | 6 429   | ..     | ..       |
| National Accounts(b)            | 1 525                 | 2 563  | 2.7      | 1 631   | 2 800  | 2.8      | 1 724   | 3 164  | 2.9      |
| International Accounts          | 2 215                 | 3 685  | 3.9      | 2 298   | 4 218  | 4.2      | 2 370   | 4 165  | 3.9      |
| Trade                           | 2 466                 | 4 981  | 5.3      | 2 705   | 5 606  | 5.6      | 2 691   | 5 708  | 5.3      |
| Prices                          | 2 846                 | 4 107  | 4.4      | 3 162   | 4 542  | 4.5      | 3 604   | 5 319  | 5.0      |
| Public Finance                  | 2 472                 | 4 884  | 5.2      | 2 383   | 4 715  | 4.7      | 2 427   | 4 741  | 4.4      |
| Private Finance                 | 1 183                 | 2 005  | 2.1      | 1 103   | 1 913  | 1.9      | 1 112   | 1 933  | 1.8      |
| Agriculture                     | 2 957                 | 7 877  | 8.4      | 3 404   | 8 341  | 8.3      | 3 671   | 8 680  | 8.1      |
| Mining                          | 480                   | 1 091  | 1.2      | 558     | 1 033  | 1.0      | 545     | 1 282  | 1.2      |
| Energy                          | 155                   | 273    | 0.3      | 213     | 675    | 0.7      | 391     | 2 146  | 2.0      |
| Business Surveys                | 1 510                 | 3 411  | 3.7      | 1 690   | 3 686  | 3.7      | 1 915   | 4 184  | 3.9      |
| Manufacturing                   | 2 884                 | 6 708  | 7.2      | 3 007   | 7 004  | 7.0      | 3 571   | 7 824  | 7.3      |
| Retail and Services Industries  | 1 531                 | 4 846  | 5.2      | 1 617   | 4 449  | 4.4      | 2 360   | 6 690  | 6.2      |
| Construction                    | 1 708                 | 3 380  | 3.6      | 2 157   | 7 315  | 7.3      | 2 997   | 8 500  | 7.9      |
| Transport and Tourism           | 1 546                 | 6 449  | 6.9      | 1 972   | 5 471  | 5.5      | 2 405   | 4 824  | 4.5      |
| Science and Technology          | 251                   | 407    | 0.4      | 251     | 666    | 0.7      | 285     | 586    | 0.5      |
| Classification                  | 925                   | ..     | ..       | 872     | ..     | ..       | 864     | ..     | ..       |
| Integrated Register             | 5 085                 | ..     | ..       | 5 285   | ..     | ..       | 4 545   | ..     | ..       |
| Economic Statistics Integration | 313                   | ..     | ..       | 252     | ..     | ..       | 293     | ..     | ..       |
| Economic Censuses System        | 863                   | ..     | ..       | 1 014   | ..     | ..       | 1 204   | ..     | ..       |
| Population Census(c)            |                       |        |          |         |        |          |         |        |          |
| Labour                          | 4 411                 | 19 326 | 20.7     | 4 894   | 20 472 | 20.5     | 5 937   | 21 992 | 20.5     |
| Social                          | 4 672                 | 12 055 | 12.9     | 5 611   | 11 591 | 11.6     | 5 661   | 9 357  | 8.7      |
| Demography                      | 1 837                 | 3 590  | 3.8      | 2 016   | 3 911  | 3.9      | 2 101   | 3 941  | 3.7      |

continued overleaf

## DISTRIBUTION OF EXPENDITURE BY PROGRAM: 1983-84 TO 1985-86

*—continued*

| Program  | Estimated expenditure |          |       |         |          |       |         |          |       |
|--|-----------------------|----------|-------|---------|----------|-------|---------|----------|-------|
|  | 1983-84               |          |       | 1984-85 |          |       | 1985-86 |          |       |
|  | Direct                | Total(a) | %     | Direct  | Total(a) | %     | Direct  | Total(a) | %     |
|  | \$'000                | \$'000   | %     | \$'000  | \$'000   | %     | \$'000  | \$'000   | %     |
| Computer Technical Services and Planning   | 2 813                 | ..       | ..    | 3 132   | ..       | ..    | 3 108   | ..       | ..    |
| Computer Applications  | 5 401                 | ..       | ..    | 5 912   | ..       | ..    | 6 174   | ..       | ..    |
| Computer Operations and Software   | 11 536                | ..       | ..    | 11 336  | ..       | ..    | 11 495  | ..       | ..    |
| Population Survey Operations   | 10 001                | ..       | ..    | 10 269  | ..       | ..    | 10 398  | ..       | ..    |
| Statistical Services   | 2 011                 | ..       | ..    | 2 045   | ..       | ..    | 2 194   | ..       | ..    |
| Data Management  | 585                   | ..       | ..    | 581     | ..       | ..    | 456     | ..       | ..    |
| Time Series  | 810                   | 769      | 0.8   | 772     | 813      | 0.8   | 918     | 998      | 0.9   |
| Management Support   | 7 978                 | ..       | ..    | 8 902   | ..       | ..    | 9 719   | ..       | ..    |
| Resource Management  | 607                   | ..       | ..    | 675     | ..       | ..    | 796     | ..       | ..    |
| Personnel Development  | 837                   | ..       | ..    | 924     | ..       | ..    | 1 043   | ..       | ..    |
| Co-ordination  | 1 574                 | ..       | ..    | 1 690   | ..       | ..    | 2 272   | ..       | ..    |
| Non-ABS(d)   | ..                    | 891      | 1.0   | ..      | 809      | 0.8   | 204     | 1 355    | 1.3   |
| <i>Total excluding population census and capital cost of plant and equipment</i> | 95 697                | 93 298   | 100.0 | 102 880 | 100 029  | 100.0 | 110 708 | 107 388  | 100.0 |
| Population Census  | 1 741                 | 4 141    | ..    | 3 956   | 6 807    | ..    | 10 633  | 13 953   | ..    |
| Plant and Equipment(e)   | 1 915                 | 1 915    | ..    | 10 026  | 10 026   | ..    | 2 620   | 2 620    | ..    |
| <i>Total including population census and capital cost of plant and equipment</i> | 99 353                | 99 353   | ..    | 116 862 | 116 862  | ..    | 123 961 | 123 961  | ..    |

(a) Statistical programs only; includes estimated costs of service programs allocated in accordance with usage on statistical programs.

(b) The costs of collecting data used in compiling the national accounts are included in the respective subject matter programs.

(c) Excluded from distribution because of large annual variations during the quinquennial cycle.

(d) General services to other government departments and agencies of which the major component in 1983-84 and 1984-85 was the provision of ABS computer services. 1985-86 includes telephone costs incurred by non-ABS tenants of Cameron Offices (subsequently recovered).

(e) Includes expenditure on the computer enhancement program.

Note: Any differences between totals and sums of components are due to rounding.

## Appendix 5

### DOCUMENTS TABLED IN PARLIAMENT : 1985-86

#### Proposals for collection of statistical information(a)

In accordance with section 6(3) of the *Australian Bureau of Statistics Act 1975*, the following proposals for collection of additional information for statistical purposes were tabled in both Houses of Parliament during 1985-86.

| <i>Date tabled</i> | <i>Project</i>  |
|--------------------|---|
| 20 August 1985     | Survey of consultancy services provided overseas, 1984-85.  |
| 11 September 1985  | Survey of Australian portfolio and other investment abroad, September quarter 1985 and quarterly thereafter.<br><br>Survey of superannuation funds, 1984-85 and annually thereafter.  |
| 17 September 1985  | Survey of life style and health risk factors in New South Wales, October 1985.<br><br>Survey of water-using appliances in private dwellings in Victoria, October 1985.<br><br>Survey of non-commercial fishing, and smoking behaviour of adults, in Queensland, October 1985.<br><br>Survey of alcohol consumption in Western Australia, October 1985.<br><br>Survey of crime and prevention of crime in the community in South Australia, October 1985.<br><br>Survey of domestic use of solid fuel in Tasmania, October 1985. |
| 19 February 1986   | Survey of recreational travel of residents in the Northern Territory, October 1985.<br><br>Survey of exits from the labour force, November 1985.<br><br>Survey of environmental issues and use of national parks, April 1986.   |

**Proposals for collection of statistical information(a)—continued**

| <i>Date tabled</i> | <i>Project</i>  |
|--------------------|---|
| 8 April 1986       | Engineering construction survey, September quarter 1986 and quarterly thereafter.                       |
|                    | Survey of beach usage in metropolitan Adelaide, May 1986.   |
| 7 May 1986         | Survey of transport and storage industries, 1984-85.  |
| 27 May 1986        | Retail census, 1985-86.   |
| 3 June 1986        | Extension of the annual survey of stocks of unsold wool to all States, 1985-86 and annually thereafter. |

**Disclosure of lists of names and addresses**

In accordance with clause 6 of the Determination (*Statutory Rules 1983 No. 19*) made under section 13 of the *Census and Statistics Act 1905*, details of the following disclosures of lists of names, addresses and other information to the specified department or authority were tabled in both Houses of Parliament in 1985-86.

| <i>Date tabled</i> | <i>Information released</i>  |
|--------------------|--|
| 11 September 1985  | Names and addresses of agricultural establishments to the Department of Primary Industry (Bureau of Agricultural Economics).   |
| 8 October 1985     | Industry classification codes to the Patent, Trade Marks and Designs Office.   |
| 11 February 1986   | Names and addresses of agricultural establishments to the Australian Meat and Livestock Corporation.<br>Names and addresses of business establishments to the Institute of Family Studies. |
| 8 April 1986       | Names and addresses of agricultural establishments to the Department of Primary Industry (Bureau of Agricultural Economics).   |

(a) Unless otherwise indicated by their titles, the statistical collections listed were national projects.

## Appendix 6

### PROFESSIONAL PAPERS PRESENTED BY ABS OFFICERS: 1985-86

During 1985-86 officers of the ABS prepared the following professional papers:

D.N. Allen : *Fact Finding for Marketing*. Presented to Market Research Society, Queensland, June 1986.

C.A. Bear : *Name Matching Techniques*. Presented to the Fifth Annual Conference of the FUJITSU Users Association of Australia, Sydney, May 1986.

M.B. Booth and P. Simpson : *Technology and the Dissemination of Statistics*. Presented to INFOTEX '85, Canberra, November 1985.

A. Brauer : *Introduction of Australian Standard Geographical Classification (ASGC)*. Presented to the Urban and Regional Planning Information Systems (URPIS 13) Conference, Adelaide, November 1985.

M. Cleland : *Open Systems Interconnection Standardisation : An Overview*. Presented to seminars of the Standards Association of Australia, Sydney and Melbourne, July 1985.

M. Cleland : *The Role of Open Systems Interconnection in Australia*. Presented to a CSIRO seminar 'Government-Industry Workshop on the Introduction of OSI to Australia', Canberra, September 1985.

L.C. Clements : *Treatment of Seasonal Fresh Fruit and Vegetables in the CPI*. Presented to the Joint ECE/ILO Seminar on Statistics and Indexes of Consumer Prices, Geneva, June 1986.

E. Davis : *Multiple Concurrent Update with VSAM*. Presented to the Fifth Annual Conference of the FUJITSU Users Association of Australia, Sydney, May 1986.

B.L. Embury : *The Development of ASCO as a Statistical Classification*. Presented to the ILO Committee of Experts Meeting for the Revision of the International Classification of Occupations, Geneva, October 1985.

B.L. Embury : *The Structure of ASCO : A Theoretical Model and its Practical Application*. Presented to the ILO Committee of Experts Meeting for the Revision of the International Classification of Occupations, Geneva, November 1985.

P. Foley : *Micro-computer Mainframe Connection*. Presented to the Fifth Annual Conference of the FUJITSU Users Association of Australia, Sydney, May 1986.

S. Matheson : *Communications : Towards 1990 and Beyond*. Presented to the Telecom Business Networks and Services Seminar, Sydney, October 1985.

**PROFESSIONAL PAPERS PRESENTED BY ABS OFFICERS: 1985-86—continued**

W. McLennan : *The Statistician's Market*. Presented to the 10th Session of the Conference of Commonwealth Statisticians, Oxford, England, August 1985.

W. McLennan and D.J. Trewin : *Changes in the Australian Statistics Legislation*. Presented to the 45th Session of the International Statistical Institute, Amsterdam, August 1985.

E.W.W. Miller : *New Technology and Statistics*. Presented (in absentia) to the 10th Session of the Conference of Commonwealth Statisticians, Oxford, England, August 1985.

E.W.W. Miller : *The User — The Company — The Industry*. Presented to the Fifth Annual Conference of the FUJITSU Users Association of Australia, Sydney, May 1986.

R. Mills : *Useful DBA Tools*. Presented to the Sixth Annual General Meeting of the Australian Software AG Users Group, Sydney, April 1986.

G. Sarossy : *The Australian Labour Force Framework and its Measurement of Unemployment*. Presented (in absentia) to the 10th Session of the Conference of Commonwealth Statisticians, Oxford, England, August 1985.

N.J.R. Williams : *Automatic Production of Publications*. Presented to the Fifth Annual Conference of the FUJITSU Users Association of Australia, Sydney, May 1986.